



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/633,756	08/07/2000	Sharon Duvdevani	U 012894-7	3691

7590

08/23/2005

Ladas & Parry
26 West 61st Street
New York, NY 10023

EXAMINER

CARTER, AARON W

ART UNIT

PAPER NUMBER

2625

DATE MAILED: 08/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/633,756

Applicant(s)

DUVDEVANI ET AL.

Examiner

Aaron W. Carter

Art Unit

2625

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 March 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 August 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 11/04, 3/05
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Appeal Brief

1. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

Priority

2. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Israel on August 5, 1999. It is noted, however, that applicant has not filed a certified copy of the Israel #131282 application as required by 35 U.S.C. 119(b).

Specification

3. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a **single paragraph** on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

The abstract of the disclosure is objected to because it contains two paragraphs.

Correction is required. See MPEP § 608.01(b).

4. The disclosure is objected to because of the following informalities:

On page 17, line 32 (last line), please amend to include the US patent application number or possibly the US Patent number of the document that the specification is referring to.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 3-8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 3 recites the limitation "the image" in lines 3 and 5. There is insufficient antecedent basis for this limitation in the claim.

Claim 4 recites the limitation "the image" in lines 3. There is insufficient antecedent basis for this limitation in the claim.

Claim 5 recites the limitation "the image" in lines 2. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

Art Unit: 2625

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3, 4 and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by USPN 4,958,374 to Tokita et al. (“Tokita”).

As to claim 1, Tokita discloses a method for inspecting objects, the method comprising:

Creating reference image for a representative object, said reference image comprising an at least partially vectorized first representation of boundaries representing said representative object (column 4, lines 11-15 and lines 42-53 and Fig. 4);

Acquiring an image of an object under inspection comprising a second representative of boundaries representing said object under inspection (column 3, line 66 – column 4, line 11, column 4, lines 22-33 and Fig. 2); and

Comparing a location of at least some boundaries in the second representation of boundaries to a location of corresponding boundaries in said at least partially vectorized first representation of boundaries (column 4, lines 55-64), thereby to identify defects (column 5, lines 9-15).

As to claim 3, Tokita discloses a system for image processing comprising:

Art Unit: 2625

A boundary identifier operative to generate a representation of boundaries of known elements in the image (column 3, line 66 – column 4, line 11, (column 4, lines 22-33, Fig. 2 and Fig. 17);

A hardware candidate defect identifier operative to identify at least some candidate defects in the image, in hardware (column 4, lines 55-64 and Fig. 17); and

A software candidate defect inspector receiving an output from the hardware candidate defect identifier and analyzing a location of boundaries in said representation of boundaries to identify at least one false within said output, in software (column 4, line 64 – column 5, line 15 and Fig. 17).

As to claim 4, Tokita disclose a system according to claim 3, wherein the boundary identifier comprises a hardware boundary identifier operative to generate a representation of boundaries of known elements in the image, in hardware (column 3, line 66 – column 4, line 11, (column 4, lines 22-33, Fig. 2 and Fig. 17).

As to claim 7, Tokita discloses a system according to claim 3, wherein said hardware candidate defect identifier employs said representation of boundaries in order to identify at least some candidate defects (column 4, lines 55-64 and Fig. 17).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 2625

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tokita

As to claim 2, Tokita discloses a method according to claim 1, wherein the comparing employs a variable threshold for acceptable distance between corresponding portions of the boundaries in the first and second representations (column 5, lines 7-15 and column 7, line 67 – column 8, line 8).

Tokita does not disclose expressly wherein the variable threshold is user-selected.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to have the user select the threshold. Applicant has not disclosed that have the user select the threshold, as opposed to the system automatically selecting it, provides an advantage, is used for a particular purpose or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with the system selecting the threshold because selecting the threshold is based solely on the minimum value of gradient vector differences.

Therefore, it would have been obvious to combine to one of ordinary skill in this art to modify the invention of Tokita with to obtain the invention as specified in claim 2.

Allowable Subject Matter

Art Unit: 2625

9. Claims 5, 6 and 8 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

USPN 5,815,596 to Ahuja et al. discloses determining edges from gradient vectors.

USPN 5,907,628 to Yolles et al. discloses image comparison.

USPN 5,974,169 to Bachelder discloses boundary determination.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aaron W. Carter whose telephone number is (571) 272-7445.

The examiner can normally be reached on 8am - 4:30 am (Mon. - Fri.).

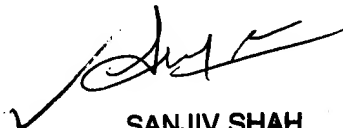
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bhavesh Mehta can be reached on (571) 272-7453. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2625

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

awc

AWC



SANJIV SHAH
PRIMARY EXAMINER